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EXAMINER

KE, PENG

ART UNIT PAPER NUMBER

2174

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/610,632

Applicant(s)

NEALE ET AL.

Examiner

Peng Ke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 and 71-107 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 71-94 is/are allowed.
- 6) ☒ Claim(s) 1-39 and 95-107 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 12/15/03.
2. Claims 1-39, and claim 71-107 are pending in this application. Claims 1, 14, 27, 71, 83, and 95 are independent claims. In the Amendment, filed on 12/15/03, claims 40-70 were cancelled
3. Applicant's election with traverse of claim 1-39, and 71-107 in Paper No. 5 is acknowledged. Applicant didn't provide an argument against the election requirement. The requirement is still deemed proper and is therefore made FINAL.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Application's abstract is objected to because it is too long.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 7, 14, 15, 18, 20, 27, 28, 31, and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024) in view of Bergman et al. (US 5,909,678).

As per claim 1, Shwarts teaches a graphical user interface for building Boolean queries and viewing search results comprising:

- a. a workspace capable of enclosing one or more search cells and one or more combination cells (Fig. 2D, items “connector”, “field”, “Operator”, “Expression”);
- b. a means for inserting search cells into the workspace, each search cell having a search by type icon (fig 10A, 130a-g), a text field (fig 10A, 125) and a hit count (fig. 10A, 130c);
- d. a means for deleting selected search cells from the workspace (Fig. 10 A, 130a); and
- e. a means for viewing search results of selected search cells and flagged combination cells (col. 17, lines 64- 68).

However, Shwarts fails to teach

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c. a means for inserting combination cells into the workspace each combination cell having a combine icon a hit count and an expression field, wherein content of the expression field within a selected combination cell is determined by the combine icon and selection of search cells to be included within the selected combination cell.

Bergman et al. teaches a means for inserting combination cells into the workspace each combination cell having a combine icon an expression field, wherein content of the expression field within a selected combination cell is determined by the combine icon and selection of search cells to be included within the selected combination cell (fig. 7, col. 10, lines 22-55)

It would have been obvious to an artisan at the time of the invention to include Bergman et al.'s teaching with Shwart's method in order to provide an easy-to-use query interface that has the feel of a natural language interface, but has more structure and gives a user more guidance in constructing the query without sacrificing user flexibility in constructing the query.

As per claim 2, Shwarts teaches the graphical user interface for building Boolean queries and viewing search results as in claim 1, wherein the search cells and the combination cells are capable of being graphically relocated within the workspace (col. 5, lines 34-38).

As per claim 5, Shwarts teaches the graphical user interface for building Boolean queries and viewing search results as in claim 1, wherein the search by type icon is selected from a group including a category icon (Fig. 10B, 121), a keyword icon (fig. 10B item 130), and a media type icon (col. 10B, 129).

As per claim 7, Shwarts teaches the graphical user interface for building Boolean queries and viewing search results as in field is capable of being selected using a category claim 1,

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wherein content of the text field is capable of being selected using a category walker (Fig. 2h, "Join Tables").

As per claim 14, it is rejected with same rationale as claim 1. (see rejection above)

As per claim 15, which is dependent on claim 14, it is of the same scope as claim 2. (see rejection above)

As per claim 18, which is dependent on claim 14, it is of the same scope as claim 5. (see rejection above)

As per claim 20, which is dependent on claim 14, it is of the same scope as claim 7. (see rejection above)

As per claim 27, it is rejected with same rationale as claim 1. (see rejection above)

As per claim 28, which is dependent on claim 27, it is of the same scope as claim 2. (see rejection above)

As per claim 31, which is dependent on claim 27, it is of the same scope as claim 5. (see rejection above)

As per claim 33, which is dependent on claim 27, it is of the same scope as claim 7. (see rejection above)

Claims 95, 96, 97, 100, and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Szabo (US 6,326,962).

As per claim 95, Shwartz teaches a graphical user interface for building Boolean queries and viewing search results comprising:

a. a window including a workspace and a tool bar (fig 10A, 130a-g) ;

b. two or more search cells stacked in a first column of the workspace (Fig. 10 A, 130a):

I. each search cell having a search by type icon, a text field and a hit count (fig.

10. "count");

II. each search cell movable within the first column (Fig. 10 A, 130a);

However, Shwartz fails to teach combining at least two search cells (fig. 6, items 327, 427).

Bergman et al. teaches a means for inserting combination cells into the workspace each combination cell having a combine icon, a hit count and an expression field, wherein content of the expression field within a selected combination cell is determined by the combine icon and selection of search cells to be included within the selected combination cell (fig. 7, col. 10, lines 22-55)

It would have been obvious to an artisan at the time of the invention to include Bergman et al.'s teaching with Shwartz's method in order to provide an easy-to-use query interface that has the feel of a natural language interface, but has more structure and gives a user more guidance in constructing the query without sacrificing user flexibility in constructing the query.

However, both Shwartz and Bergman fail to teach the step of:

c. providing a pin between each pair of adjacent search cells, each pin having a shaft and a pinhead and each pin configured for horizontal movement within a second column adjacent to the first column; and

e. wherein movement of the pin head generates/manipulates the combination brackets.

Szabo teaches

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c. providing a pin between each pair of adjacent search cells, each pin having a shaft and a pinhead and each pin configured for horizontal movement within a second column adjacent to the first column (col. 36, lines 30-36); and

e. wherein movement of the pin head generates/manipulates the combination brackets (col. 36, lines 30-36).

It would have been obvious to an artisan at the time of the invention to include Szabo's teaching with method of Shwarts and Bergman in order to provide user with a suitable graphic interface for handling of complex data searches involving fuzzy logic.

As per claim 96, Shwarts teaches the graphical user interface for building Boolean queries and viewing search results as in claim 95, wherein the search by type icon is selected from a group including a category icon (Fig. 10B, 121), a keyword icon (fig. 10B item 130), and a media type icon (col. 10B, 129). (see rejection above)

As per claim 97, Shwart, Bergman and Szabo teach the graphical user interface for building Boolean queries and viewing search results as in claim 95. Bergman et al. further teaches wherein each search cell includes an advanced button which when selected causes the search cell to expand and additional features including facet type and matching terms to be displayed within the search cell (fig. 11, items 181, and 182).

As per claim 100, Shwarts teaches the graphical user interface for building Boolean queries and viewing search results as in field is capable of being selected using a category claim 95, wherein content of the text field is capable of being selected using a category walker (Fig. 2h, "Join Tables").

. (see rejection above)

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As per claim 107, Shwarts teaches wherein graphical representation of the combination bracket is selected from a group including a rectangular bracket, a square bracket, and a curly brace (Fig. 10 D, item 135).

Claims 3, 4, 8, 9, 16, 17, 21, 22, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Beall (US 6,169,992).

As per claim 3, Shwarts and Bergman et al. teach the graphical user interface for building Boolean queries and viewing search results as in claim 2. However they fail to teach wherein:

a. an applet running on a client controls insertion, selection, movement, and deletion of the search cells and the combination cells; and

a server:

- i. executes queries received over an internet connection from the client; and
- ii. delivers search results back to the client over the internet.

Beall et al. teaches (US 6,169,992) an applet running on a client controls insertion, selection, movement, and deletion of the search cells and the combination cells (fig. 36, item 740); and

a server (col. 4, lines 15-28):

- i. executes queries received over an internet connection from the client (col. 4, lines 34-40); and
- ii. delivers search results back to the client over the internet (col. 4, lines 42-50).

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It would have been obvious to an artisan at the time of the invention to include Beall et al.'s teaching with interface of Shwarts and Bergman in order to allow user and the server to access other independent resources that are out side of the local network.

As per 4, Shwarts, Bergman and Beall teach the graphical user interface for building Boolean queries and viewing search results as in claim 3. Beall et al. further teaches (US 6,169,992) wherein the client is local and the server is remote (col. 4, lines 42-50).

As per claim 16, it is of the same scope as claim 3. (see rejection above)

As per claim 17, it is of the same scope as claim 4. (see rejection above)

As per claim 29, it is of the same scope as claim 3. (see rejection above)

As per claim 30, it is of the same scope as claim 4. (see rejection above)

As per claim 8, Shwarts and Bergman teach the graphical user interface for building Boolean queries and viewing search results as in claim 1. However he fails to teach the interface wherein information displayed by the means for viewing search results includes a title, a media type, and a location for each search result.

Beall teaches an interface wherein information displayed by the means for viewing search results includes a title, a media type, and a location for each search result (fig. 24, items 4077-4081, col. 16, lines 33-57).

It would have been obvious to an artisan at the time of the invention to include Beall et al.'s teaching with interface of Shwarts and Bergman in order to provide user with detail information for each of the search results.

As per claim 9, Shwart, Bergman and Beall teach the graphical user interface for building Boolean queries and viewing search results as in claim 8. Beall further teaches the interface wherein the location is a URL address (col. 16, lines 33-57).

As per claim 21, it is of the same scope as claim 8. (see rejection above)

As per claim 22, it is of the same scope as claim 9. (see rejection above)

Claims 98 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Szabo (US 6,326,962), further in view of Beall (US 6,169,992).

As per claim 98, Shwarts, Bergman, and Szabo teach the graphical user interface for building Boolean queries and viewing search results as in claim 95. Szabo further teach wherein:

II. the generation and manipulation of the combination brackets (fig. 10 D, 135);

However, they fail to teach:

A. i an applet running on a client controls insertion, selection, movement, and deletion of the search cells and the combination cells; and

a server:

i. executes queries received over an internet connection from the client; and

ii. delivers search results back to the client over the internet.

Beall et al. teaches (US 6,169,992) an applet running on a client controls insertion, selection, movement, and deletion of the search cells and the combination cells (fig. 36, item 740); and

a server (col. 4, lines 15-28):

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i. executes queries received over an internet connection from the client (col. 4, lines 34-40); and

ii. delivers search results back to the client over the internet (col. 4, lines 42-50).

It would have been obvious to an artisan at the time of the invention to include Beall et al.'s teaching with interface of Shwarts, Bergman, and Szabo in order to allow user and the server to access other independent resources that are out-side of the local network.

Claims 10-13, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Martin (US 6,662,177).

As per claim 10 Shwart, and Bergman teach the graphical user interface for building Boolean queries and viewing search results as in claim 1. However, he fails to teach wherein search parameters displayed in the workspace are treated as a session.

Martin (US 6,662,177) teaches an interface search parameters displayed in the workspace are treated as a session (col. 2, lines 3-10).

It would have been obvious to an artisan at the time of the invention to include Martin et al.'s teaching with Shwarts' interface in order to allow users to save and retrieve their old queries.

As per claim 11, Shwarts, Bergman and Martin teach the graphical user interface for building Boolean queries and viewing search results as in claim 10. Martin further teaches wherein a user has ability to save, open, import, and close the session (col. 2, lines 3-10).

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As per claim 12, Shwarts and Bergman teach the graphical user interface for building Boolean queries and viewing search results as in claim 1. However he fails to teach wherein the search results are treated as a collection.

Martin (US 6,662,177) teaches wherein the search results are treated as a collection (col. 2, lines 3-10).

It would have been obvious to an artisan at the time of the invention to include Martin et al.'s teaching with Shwarts' interface in order to allow users to save and retrieve their old queries.

As per claim 13, Shwarts, Bergman and Martin teaches the graphical user interface for building Boolean queries and viewing search results as in claim 12, wherein a user has ability to save, open, import, and close the collection (col. 2, lines 3-10).

As per claim 23, it is of the same scope as claim 10. (see rejection above)

As per claim 24, it is of the same scope as claim 11. (see rejection above)

As per claim 25, it is of the same scope as claim 12. (see rejection above)

As per claim 26, it is of the same scope as claim 13. (see rejection above)

Claims 6, 19, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Nagamori (US 5,592,663).

As per claim 6, Shwart and Bergman teach the graphical user interface for building Boolean queries and viewing search results as in claim 1. However, they fail to teach wherein the combine icon is selected from a group including a logical AND a logical OR icon and a logical MINUS icon.

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Nagamori teaches a graphical user interface wherein the combine icon is selected from a group including a logical AND a logical OR icon and a logical MINUS icon (col. 10, lines 57-68).

It would have been obvious to an artisan at the time of the invention to include Nagamori's teaching with interface of Bergman and Shwart in order to allow users to easily identify the logical operators in the interface for formulating the SQL operation statements.

As per claim 19, it is of the same scope as claim 6. (see rejection above)

As per claim 32, it is of the same scope as claim 6. (see rejection above)

Claim 99 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Szabo (US 6,326,962) in view of Nagamori (US 5,592,663).

As per claim 99, Shwart, Bergman and Szabo teach the graphical user interface for building Boolean queries and viewing search results as in claim 95. However, they fail to teach wherein the combine icon is selected from a group including a logical AND a logical OR icon and a logical MINUS icon.

Nagamori teaches a graphical user interface wherein the combine icon is selected from a group including a logical AND a logical OR icon and a logical MINUS icon (col. 10, lines 57-68).

It would have been obvious to an artisan at the time of the invention to include Nagamori's teaching with interface of Bergman, Shwart, and Szabo in order to allow users to easily identify the logical operators in the interface for formulating the SQL operation statements.

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Claims 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Beall (US 6,169,992) in view of Nagamori (US 5,592,663).

As per claim 34, Shwartz and Bergman teach the graphical user interface for building Boolean queries and viewing search results as in claim 27, where in the search by group in includes a category button (fig. 10a, item 124), action group includes a remove button. (fig 10 a, items 130a-b), and display result button (fig. 10b, item 122a) However, he fails to teach wherein the toolbar includes a search by group, a combine group, and an actions group:

A. the search by group having a category button, a keyword button, and a date button, wherein:

ii. when the keyword button is selected. one search cell is generated with a keyword icon as the search by icon; and

C. the actions group having a remove button, a results button, an expand/collapse button and a quit button, wherein:

iii. when the expand-collapse button is selected, the selected combination cell is alternately collapsed into itself and expanded to show search cells within the selected combination cell; and

iv. when the quit button is selected, the window is closed.

Beall teaches the toolbar includes a search by group, a combine group, and an actions group:

A. the search by group having a category button, a keyword button, and a date button, wherein:

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ii. when the keyword button is selected, one search cell is generated with a keyword icon as the search by icon (fig 36, item 747); and

C. the actions group having a remove button, a results button, an expand/collapse button and a quit button, wherein:

iii. when the expand-collapse button is selected, the selected combination cell is alternately collapsed into itself and expanded to show search cells within the selected combination cell(fig 36, item 735); and

iv. when the quit button is selected, the window is closed (fig 36, item 735).

It would have been obvious to an artisan at the time of the invention to include Beall's teaching with interface of Shwartz and Bergman in order to allow users to easily terminate a search session or put it aside.

However, they all fail to teach the search group includes:

iii. when the date button is selected, one search cell is generated with a date icon as the search by icon; and

the combine group having a logical AND button, a logical OR button and a logical MINUS button, wherein:

i when the logical button is selected, one combination cell is generated with a logical AND icon as the combine icon;

ii. when the logical button is selected, one combination cell is generated with a logical OR icon as the combine icon; and

iii. when the logical MINUS button is selected, one combination cell is generated with a logical MINUS icon as the combine icon;

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Nagamori teaches the search group includes:

iii. when the date button is selected, one search cell is generated with a date icon as the search by icon (fig 5, item “years”); and

the combine group having a logical AND button, a logical OR button and a logical MINUS button, wherein:

i when the logical button is selected, one combination cell is generated with a logical AND icon as the combine icon (col. 10, lines 57-68);

ii. when the logical OR, button is selected, one combination cell is generated with a logical OR icon as the combine icon (col. 10, lines 57-68); and

iii. when the logical MINUS button is selected, one combination cell is generated with a logical MINUS icon as the combine icon (col. 10, lines 57-68);

It would have been obvious to an artisan at the time of the invention to include Nagamori’s teaching with the interface of Shwarts, Bergman and Beall in order to allow users to easily identified logical operators in the interface for formulating the SQL operation statements.

As per claim 35, Shwarts, Beall, Bergman and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 34. Beall further teach wherein when the results button is selected, the search results are displayed within the workspace (fig 37, items 762-763).

As per claim 36, Shwarts, Bergman Beall, and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 35. Beall wherein the workspace includes a title, a media type, and a location for each displayed search result (fig. 24, items 4077-4081, col. 16, lines 33-57).

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As per claim 37, Shwarts, Bergman, Beall, and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 36. Beall teaches wherein the location is a URL address (fig. 24, items 4077-4081, col. 16, lines 33-57).

As per claim 38, Shwarts, Bergman, Beall, and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 34. Beall teaches wherein the window also includes a menu bar (fig. 36, items 755-739).

As per claim 39, it is of the same scope as claim 34. (see rejection above)

Claims 101-106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwarts (US 5,584,024), in view of Bergman et al. (US 5,909,678), in view of Szabo (US 6,326,962) in view of Beall (US 6,169,992) in view of Nagamori (US 5,592,663).

As per claim 101, Schwartz, Bergman, and Szabo teaches the graphical user interface for building Boolean queries and viewing search results as in claim 95, wherein the toolbar includes a search by group, a combine group, and an actions group:

Boolean queries and viewing search results as in claim 27, where in the search by group in includes a category button (fig. 10a, item 124), action group includes a remove button. (fig 10 a, items 130a-b), and display result button (fig. 10b, item 122a) However, he fails to teach wherein the toolbar includes a search by group, a combine group, and an actions group:

A. the search by group having a category button, a keyword button, and a date button, wherein:

ii. when the keyword button is selected. one search cell is generated with a keyword icon as the search by icon; and

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C. the actions group having a remove button, a results button, an expand/collapse button and a quit button, wherein:

iii. when the expand-collapse button is selected, the selected combination cell is alternately collapsed into itself and expanded to show search cells within the selected combination cell; and

iv. when the quit button is selected, the window is closed.

Beall teaches the toolbar includes a search by group, a combine group, and an actions group:

A. the search by group having a category button, a keyword button, and a date button, wherein:

ii. when the keyword button is selected. one search cell is generated with a keyword icon as the search by icon (fig 36, item 747); and

C. the actions group having a remove button, a results button, an expand/collapse button and a quit button, wherein:

iii. when the expand-collapse button is selected, the selected combination cell is alternately collapsed into itself and expanded to show search cells within the selected combination cell(fig 36, item 735); and

iv. when the quit button is selected, the window is closed (fig 36, item 735).

It would have been obvious to an artisan at the time of the invention to include Beall's teaching with interface of Shwartz, Bergman and Szabo in order to allow users to easily terminate a search session or put it aside.

However, they both fail to teach the search group includes:

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iii. when the date button is selected, one search cell is generated with a date icon as the search by icon; and

the combine group having a logical AND button, a logical OR button and a logical MINUS button, wherein:

i when the logical button is selected, one combination cell is generated with a logical AND icon as the combine icon;

ii. when the logical button is selected, one combination cell is generated with a logical OR icon as the combine icon; and

iii. when the logical MINUS button is selected, one combination cell is generated with a logical MINUS icon as the combine icon;

Nagamori teaches the search group includes:

iii. when the date button is selected, one search cell is generated with a date icon as the search by icon (fig 5, item “years”); and

the combine group having a logical AND button, a logical OR button and a logical MINUS button, wherein:

i when the logical button is selected, one combination cell is generated with a logical AND icon as the combine icon (col. 10, lines 57-68);

ii. when the logical OR, button is selected, one combination cell is generated with a logical OR icon as the combine icon (col. 10, lines 57-68); and

iii. when the logical MINUS button is selected, one combination cell is generated with a logical MINUS icon as the combine icon (col. 10, lines 57-68);

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It would have been obvious to an artisan at the time of the invention to include Nagamori's teaching with the interface of Shwarts, Bergman, Szabo and Beall in order to allow users to easily identified logical operators in the interface for formulating the SQL operation statements.

As per claim 102, The graphical user interface for building Boolean queries and viewing search results as in claim 101 , wherein when the results button is selected, search results are displayed within the workspace.

As per claim 103, Shwarts, Bergman Szabo, Beall and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 102, Beall further teach wherein the workspace includes a title and a location for each displayed search result (fig. 24, items 4077-4081, col. 16, lines 33-57).

As per claim 104, Shwarts, Bergman, Szabo, Beall and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 103, Beal further teach wherein the location is a URL address (fig. 24, items 4077-4081, col. 16, lines 33-57).

As per claim 105, Shawart, Bergman, Szabo, Beall and Nagamori teach the graphical user interface for building Boolean queries and viewing search results as in claim 101, wherein the window includes a menu bar (fig 37, items 762-763).

As per claim 106, it is of the same scope as claim 101. (see rejection above)

Allowable Subject Matter

Claims 71-94 are allowed.

The prior art fails to disclose or teach one or more pins graphically displayed between each pair of adjacent search cells, each pin having a shaft and a pinhead, and one or more

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combination brackets arranged in a Boolean hierarchy within displayed adjacent to a least two search cells and having a combine icon and a combination bracket flag... means for graphically sliding pins horizontally within the second column to generate and manipulate combination brackets and to alter Boolean hierarchy of the combination bracket claim limitations of claim 71-94.

Conclusion

The following patents are cited to further show the state of the art with respect to searching interface:

Tesler: (US 6,11,578): discloses a method, system and computer program product for navigating through partial hierarchies.

Sager: (US 5,717,883): discloses a method and apparatus for parallel execution of computer programs using information providing for reconstruction of a logical sequential program.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (703) 305-7615. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L Kincaid can be reached on (703) 308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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